

REMARKS

By this amendment, applicant has amended claim 3 to be independent form by including therein the limitations previously recited in claim 1, from which claim 3 previously depended, and by clarifying that the three-dimensional cylindrical coil is produced by, inter alia, providing conductive tracks on the support material and rolling the support material to form a cylinder. See, e.g., Figures 1 - 3. Applicant has canceled claim 1 and amended claims 2 and 4 - 6 to depend from now independent claim 3.

It is submitted the foregoing amendments place the application in condition for allowance for the reasons set forth hereinafter or, at least, in better form for consideration on appeal. Moreover, the amendments are necessary to respond to what the Examiner has admitted to be new grounds of rejection in the outstanding office action. Accordingly, entry of this amendment under 37 CFR 1.116 is requested.

Claims 1, 3 and 4 stand rejected under 35 USC 102(b) as allegedly being anticipated by United States Patent No. 4,651,254 to Brede et al. Claims 2, 5 and 6 stand rejected under 35 USC 103 as being unpatentable over Brede et al. Applicant traverses this rejection and requests reconsideration thereof.

The present invention relates to a pyrotechnic primer for igniting propellant powder for sleeveless ammunition. The principal problem with previous design specifications for inductive primers for sleeveless ammunition has been with the non-combustible components of the receiving coil and the electrical ignition elements. This is particularly the case with relative small caliber diameters because unburned remains of the primer can form residues either in the cartridge chamber or in the

barrel which will damage the weapon. See, e.g., page 1, lines 16 - 23 of applicant's specification.

The primer of the present invention has an ignition element and a coil in which the energy required for triggering is transferred by electromagnetic means (inductively). In order to avoid the problems heretofore associated with unburned remains of the primer, applicant situates the ignition element and coil on a common, flat, support material, the entire support material consisting of combustible or consumable materials, such as paper or nitro-cellulose. The three-dimensional cylindrical coil is provided by providing conductive tracks on the support material (see Figure 1), rolling the support material to form a cylinder (see Figure 2) and laying the post conductor ends of the coil one on top of the other and making a contact between them, with remaining ends of printed circuit traces forming connection surfaces of the ignition element (see Figure 3).

In Brede et al, the secondary coil is formed by arranging windings in the form of flat sandwich coils on a support material in an insulated fashion so that, upon folding of the support material, the individual flat coils are placed in mutual opposition so that they form a cylinder coil. See, e.g., Figure 2 of Brede et al.

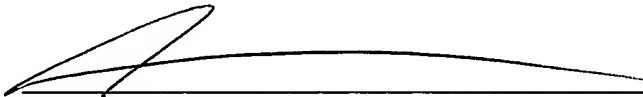
The pyrotechnic primer of the present invention is produced in a completely different fashion which provides a pyrotechnic primer having a structure different than that of Brede et al. According to the present invention, conductive tracks are provided on the support material, the support material is rolled to form a cylinder and opposed conductor ends of the coil are laid one on top of the other and contact made between them. Such a three-dimensional cylindrical coil is neither disclosed nor suggested by Brede et al. Accordingly, the presently claimed invention is neither disclosed nor suggested by United States Patent No. 4,651,254 to Brede et al.

In view of the foregoing amendments and remarks, entry of this amendment and favorable reconsideration and allowance of all of the claims now in the application are requested.

To the extent necessary, applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Case: 306.41102X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP

A handwritten signature in black ink, appearing to read 'Alan E. Schiavelli', is written over a horizontal line.

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Attachments

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Appln No. 10/048,168
Amdt. Dated 12/29/03
Resp. to OA of 8/29/03
Annotated Sheet

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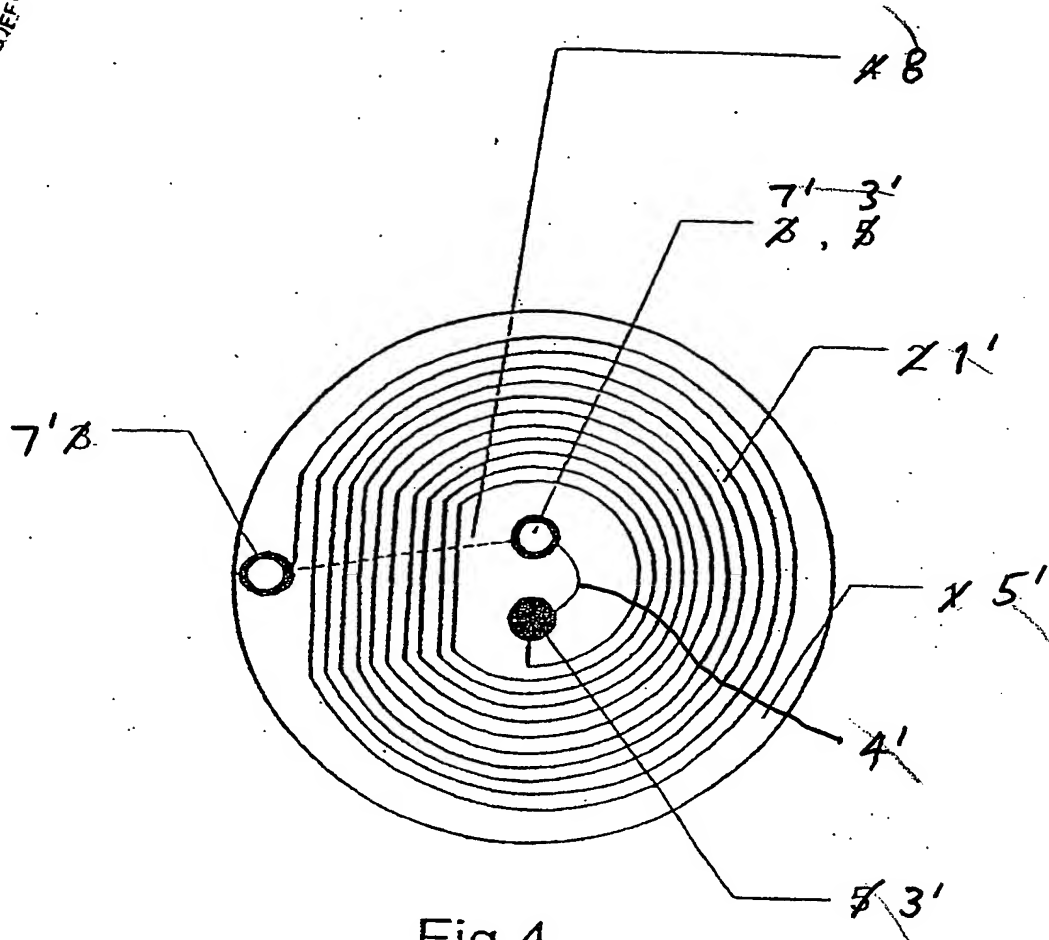


Fig.4

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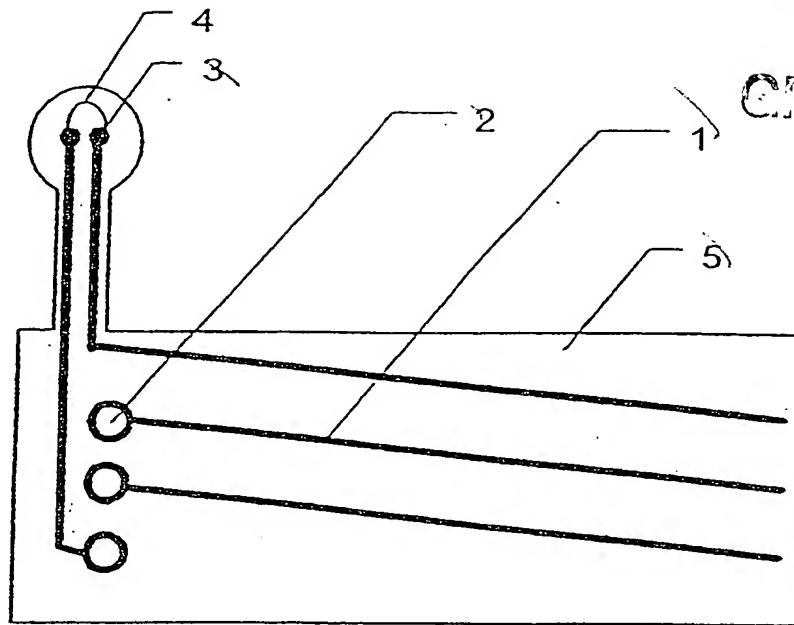


Fig. 1

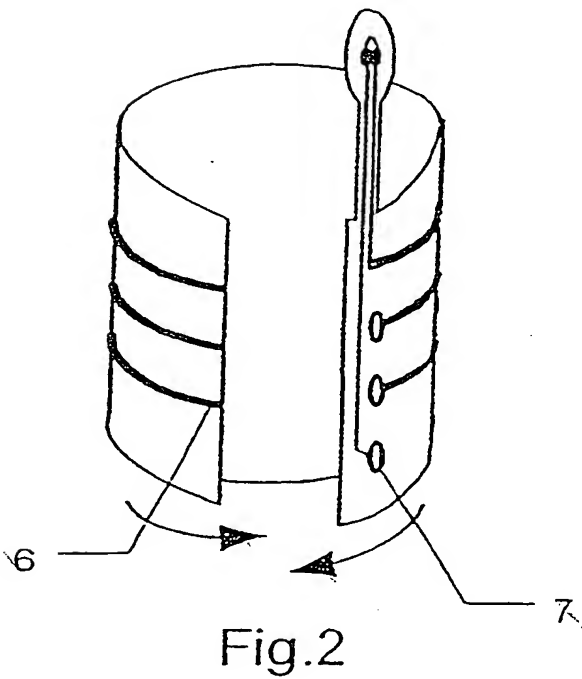


Fig. 2

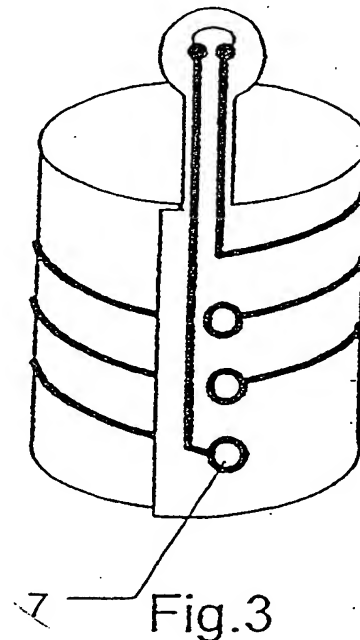


Fig. 3